

June 14, 1949

Dr. Henri Lazard,
11 rue Cernushi,
Paris 17, France

Dear Dr. Lazard:

I am not sure that I understand your question, but I take it to concern the rate of recombination in *E. coli*. The recent studies, published in the Proc Nat Ac Sci US in April do not modify earlier conclusions that cell fusion occurs at a moderately low rate, of the order of one permillion cells mixed. It is quite likely, in my opinion, that other bacteria may be found to undertake sexual fusion at a much higher rate, but this estimate still stands as the only one justified by experimental evidence. In some yeasts, of course, it is possible to find cultures in which 99% or more of the cells are fusing.

The paper referred to deals with the persistence of the fusion cell in culture, but such cells are still produced at the same rate by the stocks which do or do not produce persistent heterozygotes.

Yours sincerely,

Joshua Lederberg,
Assistant Professor of Genetics.